

## OVERVIEW

The Medallion web mapping application provides the user with tools designed to query and visualize demographic variables in Fairfax County.

## APPLICATION ORGANIZATION

The mapping applications are organized into three primary categories: Demographics, Income, and Health. The demographics applications contain variables related to age and race. The Income applications contain variables related to income, Food Stamp/SNAP recipients, and burdened renters. The Health applications contain variables related to households with a disability and people without health insurance. All variables, except for Free and Reduced Price Lunch, are aggregated to five different geographies: elementary school attendance area, middle school attendance area, high school attendance area, ZIP codes, and supervisor districts. The Free and Reduced Price Lunch variable are only available by the school attendance areas for elementary school, middle school, and high school.

Each category has an application containing all variables. Individual variable applications are also available to allow for single variable filtering and mapping. The full list of applications by category is below.

Category	Application	Variable
Demographics	Demographics	Population Age 0-4
		Population Age 5-19
		Population Age 65+
		White Population
		Black/African American Population
		Asian Population
		Multiple/Other Race Population
		Hispanic Population
	Population Age 0-4	Population Age 0-4
	Population Age 5-19	Population Age 5-19
	Population Age 65+	Population Age 65+

	White Population	White Population
	Black/African American Population	Black/African American Population
	Asian Population	Asian Population
	Multiple/Other Race Population	Multiple/Other Race Population
	Hispanic Population	Hispanic Population
Income	Income	Median Household Income
		Households with Income under \$50,000
		Households Receiving Food Stamps/SNAP
		Households Below Poverty Level
		Burdened Renters
		Free and Reduced Price Lunch
	Median Household Income	Median Household Income
	Households with Income under \$50,000	Households with Income under \$50,000
	Households Receiving Food Stamps/SNAP	Households Receiving Food Stamps/SNAP
	Households Below Poverty Level	Households Below Poverty Level
	Burdened Renters	Burdened Renters
	Free and Reduced Price Lunch	Free and reduced Price Lunch
Health	Health	Age 18-64 without Health Insurance
		Households with 1+ Persons with a Disability
	Age 18-64 without Health Insurance	Age 18-64 without Health Insurance
	Households with 1+ Persons with a Disability	Households with 1+ Persons with a Disability

## APPLICATION TOOLS

The following tools are available in each application to search and filter.

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## SPLASH SCREEN

A splash screen appears when opening each application. The splash screen provides information on the source of the data variables available in the map. Click on the hyperlinks to access the Disclaimer or Data Source. Otherwise, click the “OK” button to continue to the map. An example of the splash screen from the 2017 Income application is below.

By accessing any of the data, maps, or applications provided by Fairfax County, you agree to the terms in our [disclaimer](#).

Data Source: [U.S. Census Bureau, American Community Survey 2011-2015](#)

Data Source: [Esri Updated Demographics 2017/2022](#)

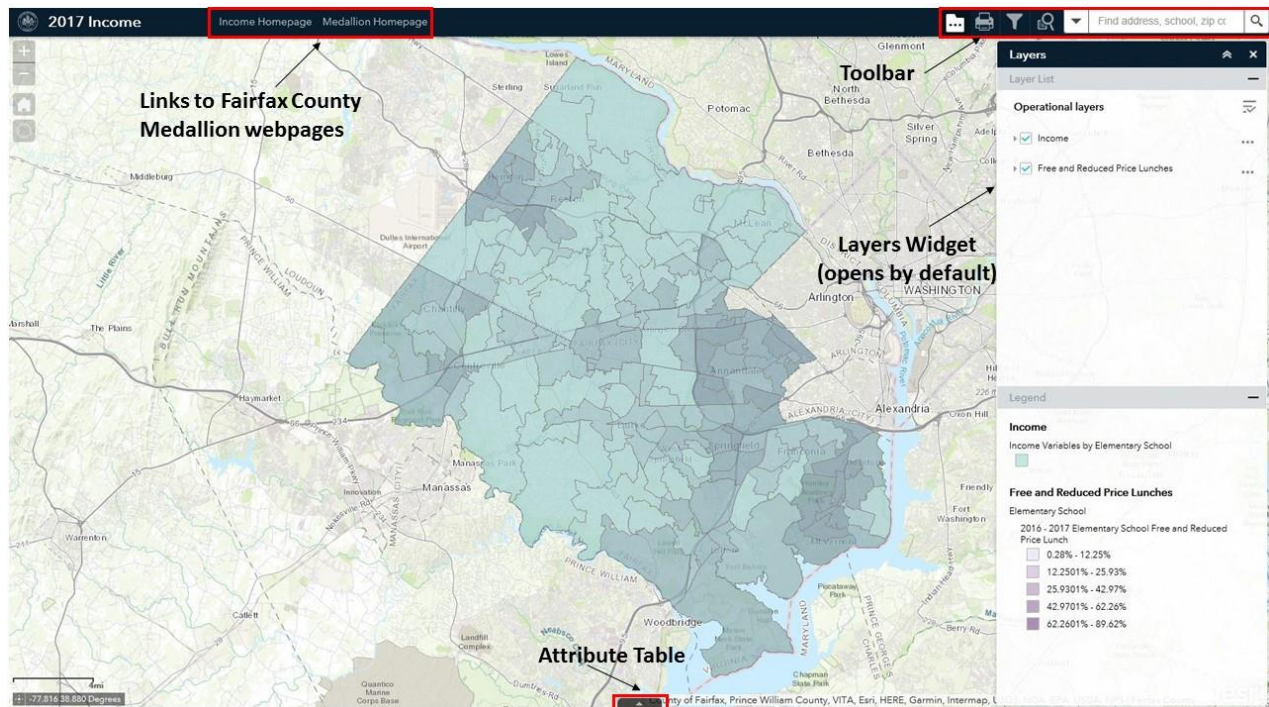
Data Source: [Free and Reduced Price Lunch](#)


☐ Do not show this splash screen again.

OK


## LAYERS

The Layers tool allows the user to turn layers on and off and view layer symbology.

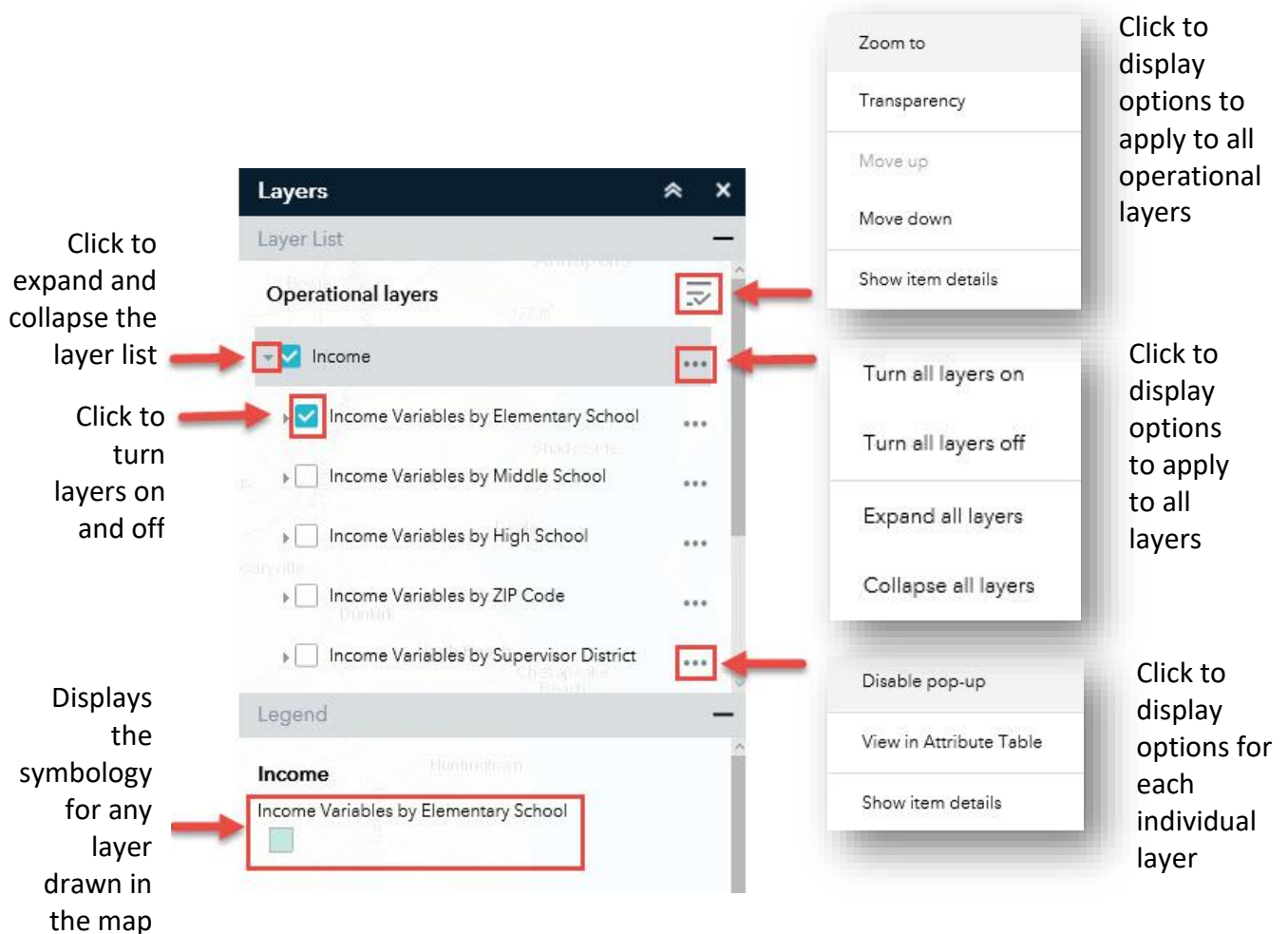


The Layers tool opens by default with all applications. To turn the Layer tool on and off, click the  symbol located in the toolbar on the right side of the window. The only layer visible by default in all applications is the elementary school attendance area layer (see example above).

The user can turn other layers on and off by using the Layers tool. To turn layers on and off first expand the layer list using the down arrow to the left of the layer listed and then use the check boxes next to each individual layer. A shortcut is available at the top right side of the Layers window that allows the user to quickly turn all layers on or off and expand or collapse all layers.

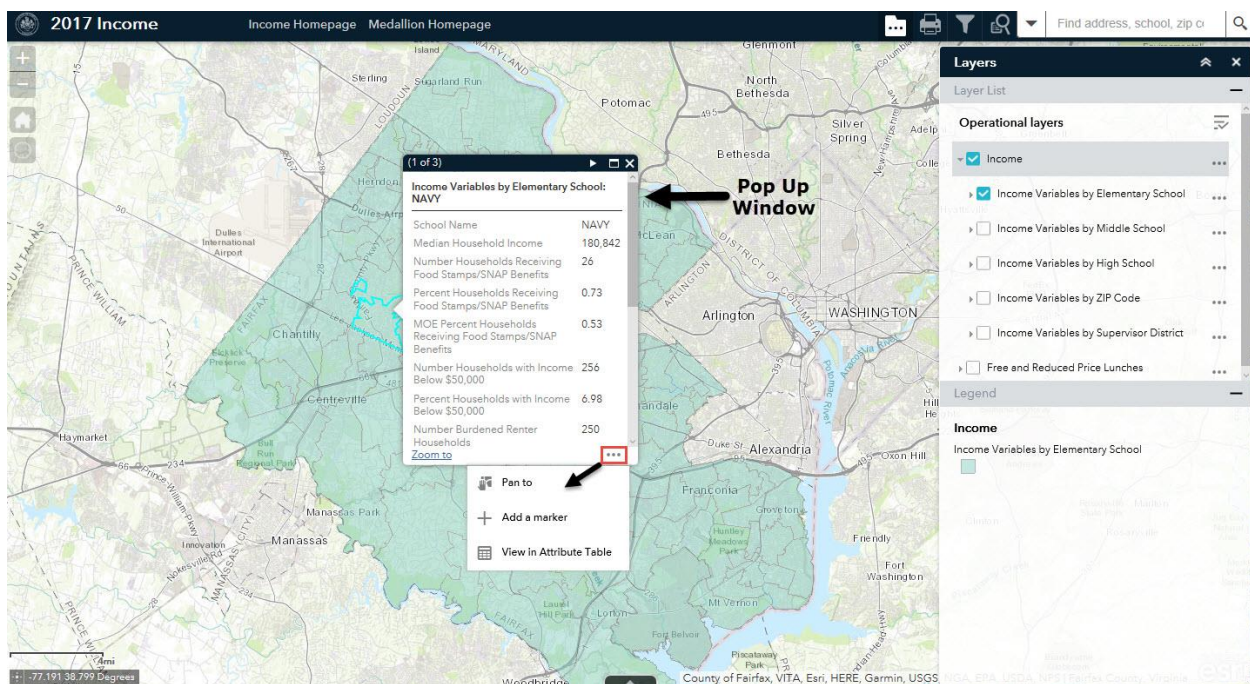
Layer options include zoom to, transparency, move up, move down and show item details. Individual layer options include, disable pop-up, view in attribute table, and show item details. To access these options, click the  symbol to the right of each layer.

The symbology for each layer drawn on the map is displayed in the Legend, which is located on the bottom half of the Layers window. See the diagram below for details of the Layers tool.

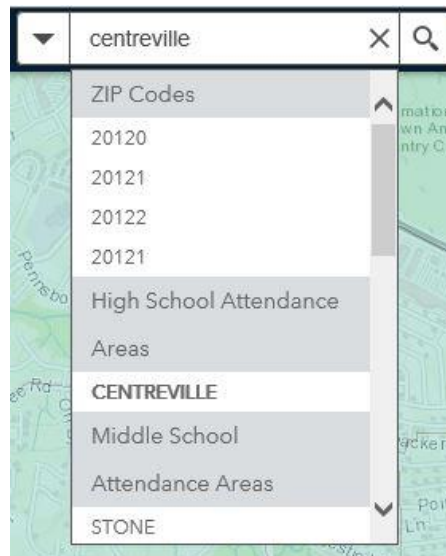




The user can click on individual areas of the map to display information specific to that individual elementary school, middle school, high school, zip code or supervisor district, depending on what layer is turned on. A pop up window will display, showing information specific to that area. For example, income variables by Navy Elementary School is shown in the image below. To access additional display options, including pan to, add a marker and view in attribute table, click the **...** symbol in the lower right corner of the pop up window, also shown below.

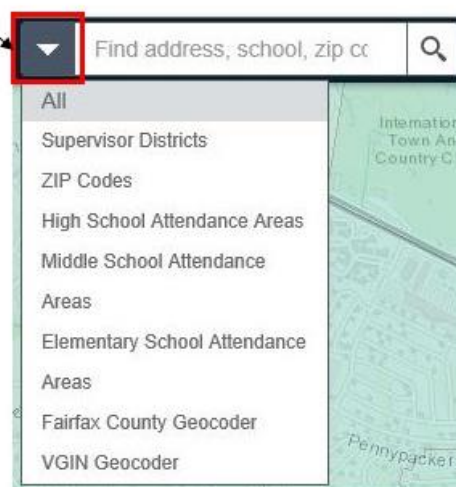


The search tool, located in the top right of the screen, allows the user to search for an address, school attendance area, ZIP code, or supervisor district. Once a search term is entered, the tool returns results for any of the searchable layers, as shown below.




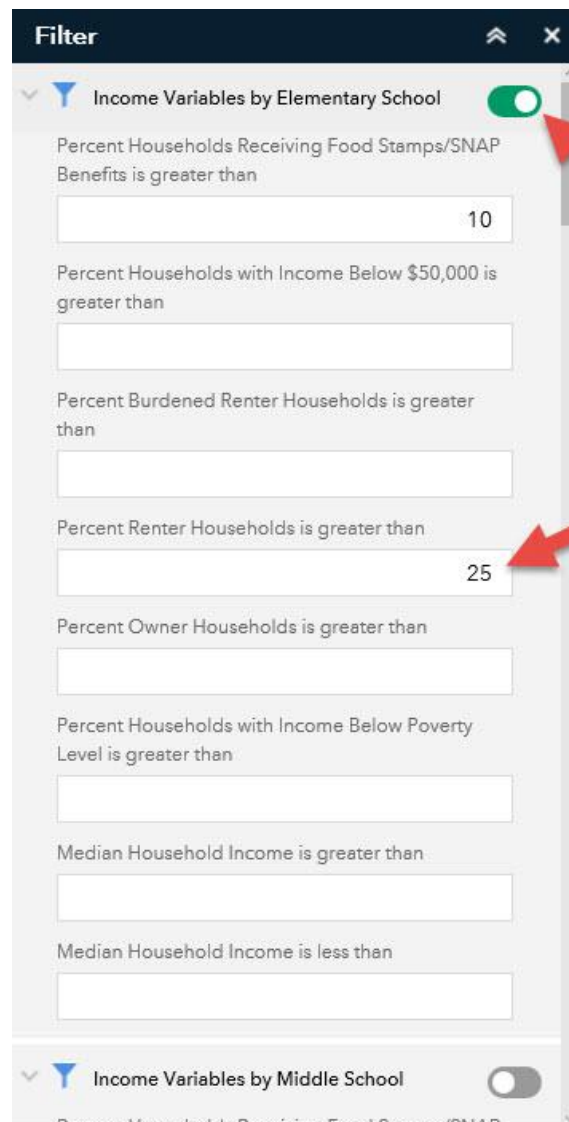
The user can scroll through the list and pick the correct result. The map will zoom to the chosen result. The user can also select the layer to be searched. The default is to search all layers.

**Click to select search layer**





The filter tool, available in every application, allows the user to filter the data in the application based on chosen criteria. To turn the filter tool on and off, click the symbol above, located on the right side of the tool bar. Users can filter based on one or multiple variables. To turn the filter on and off, click on the toggle button  in the top right corner of the Filter window.

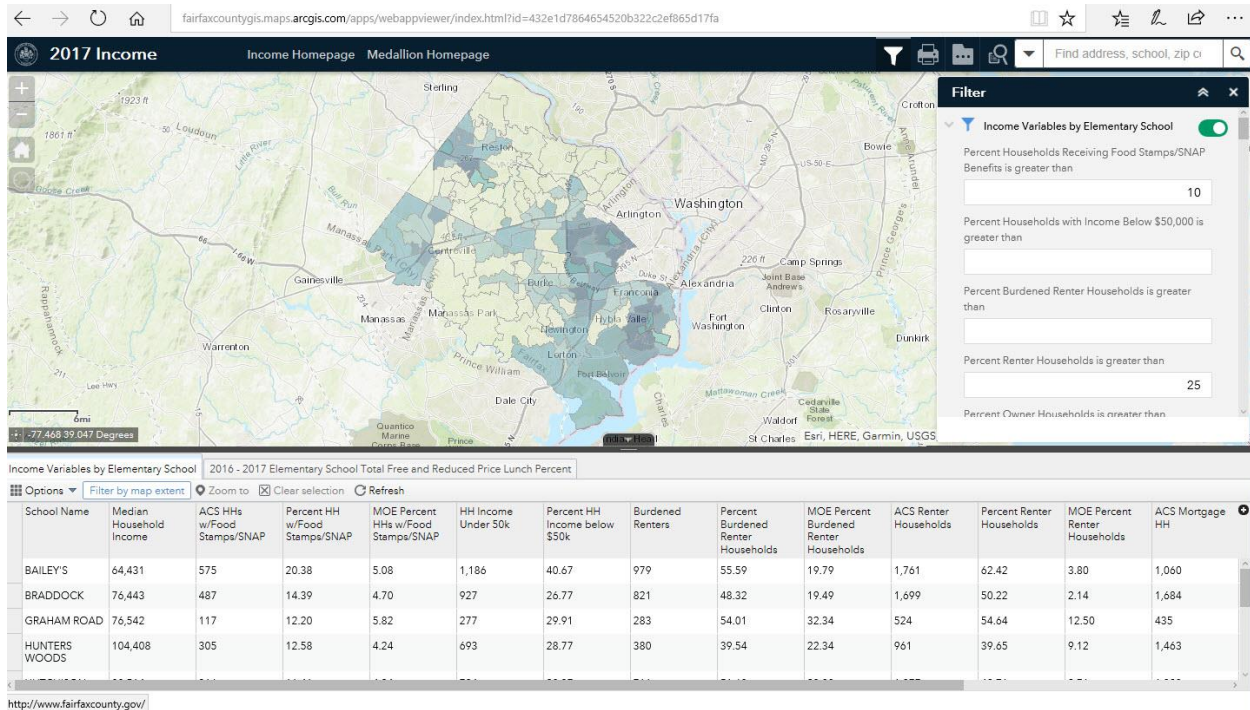


Click to turn the filter on and off.

Fill in the value(s) wanted and then press the “Enter” key to apply the change. The map will automatically update based on the filter value(s).



Note: For the filter tool to work you must first select the individual layer in the layer tool, for example, variables by elementary school, middle school, high school, zip code or supervisor district. The filter results can be seen on the map and in the attribute table, as shown in the image below.



Similar to the filter tool, the query tool allows the user to search through the data variables in the application. To turn the query tool on and off, click the symbol above, located on the right side of the tool bar. The query tool is only available in the three category level applications: Demographics, Income, and Health. The image below is the Demographics application query tool.



Choose a data layer to search, click the layer and then enter the values for the query criteria. Values can be entered into one or more field, as shown in the image below. Click “Apply” to execute.

Query

TasksResults

Demographics by Elementary School

Query criteria

Percent Population Age 0-4 is greater than

Percent Population Age 5-19 is greater than

Percent Population Age 65+ is greater than

10

Percent White Population is greater than

Percent Black/African American Population is greater than

Percent Asian Population is greater than

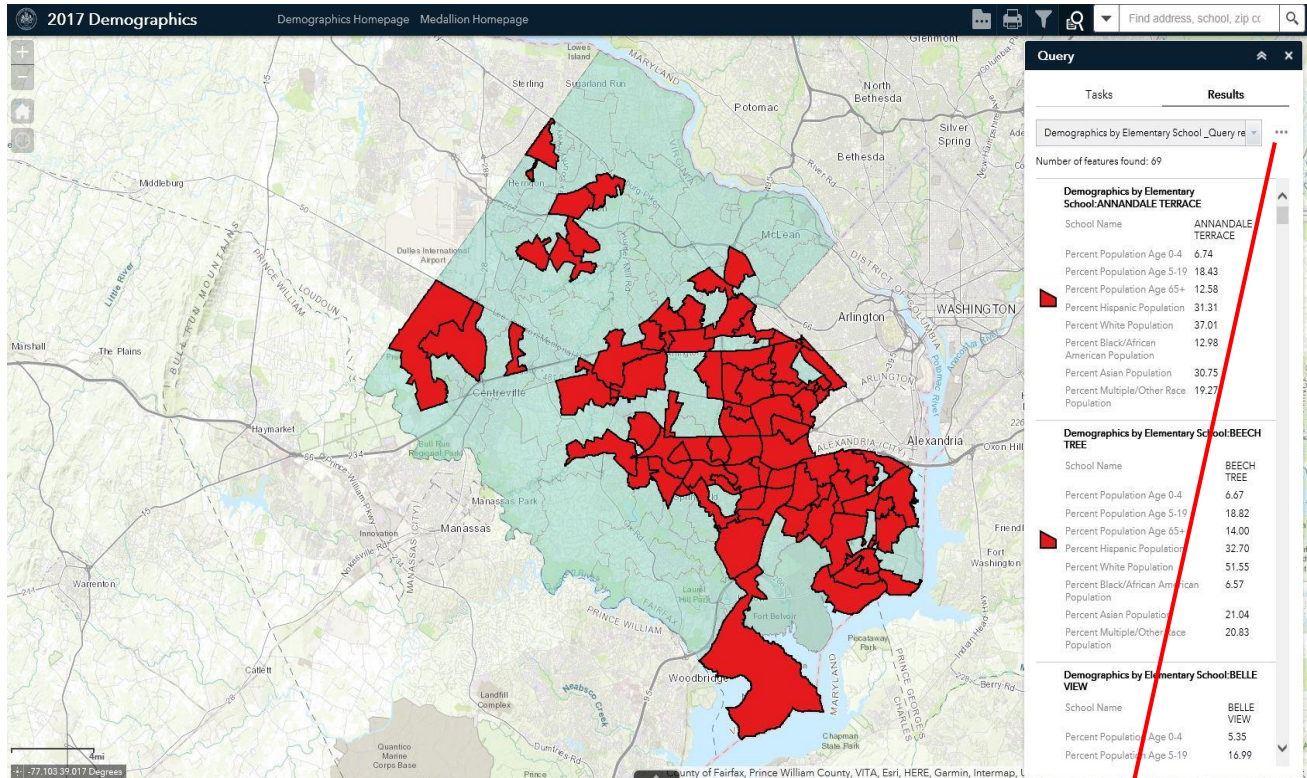
Percent Multiple/Other Race Population is greater than

Percent Hispanic Population is greater than

10

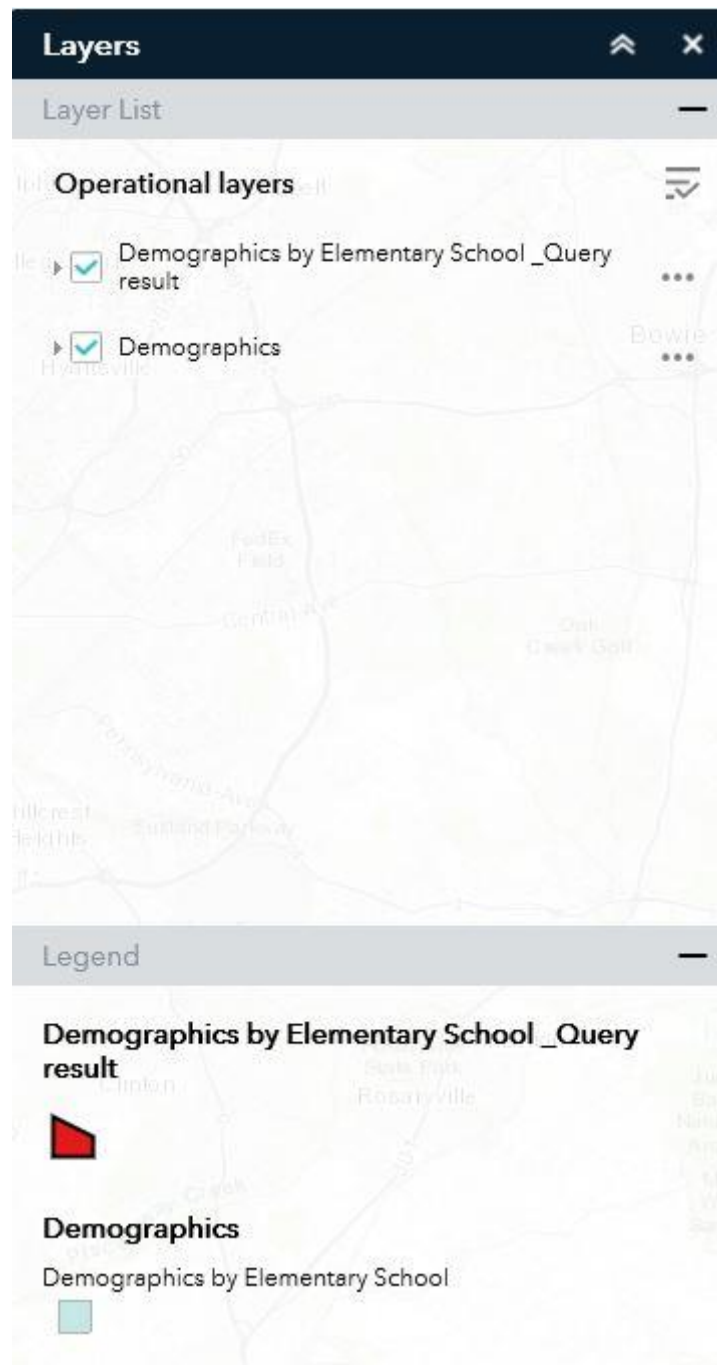
Apply

Unlike the filter tool, the query tool creates a new layer in the map. Note: Unlike the filter tool, you are not required to have an individual layer turned on in the layer tool for the query tool to work. However, you do have the option to keep layers in the layer tool turned on so that they may simultaneously display on the map, along with the query, as shown below. Additional query options, including zoom to, pan to, flash, export to CSV file, etc. are available. To access these options, click the **...** symbol to the right of each layer, also shown below.




- Zoom to
- Pan to
- Flash
- Export to CSV file
- Export to feature collection
- Export to GeoJSON
- Statistics...
- Save to My Content
- View in Attribute Table
- Remove this result

The new layer can now be seen at the bottom of the Layers widget, as shown in the image below.



## ATTRIBUTE TABLE



The attribute table is accessed from the bottom of the window by clicking the symbol above. On initial opening, the layer(s) drawn by default will display. To turn on additional tables, use the  next to the layer name in the Layers tool. Select “View in Attribute Table” to view the table.



To turn the table off, click the “X” next to the layer name in the Attribute Table. The table that is open by default in the application cannot be closed by the user.



Within the Attribute Table for each layer, there are various tools available to the user.

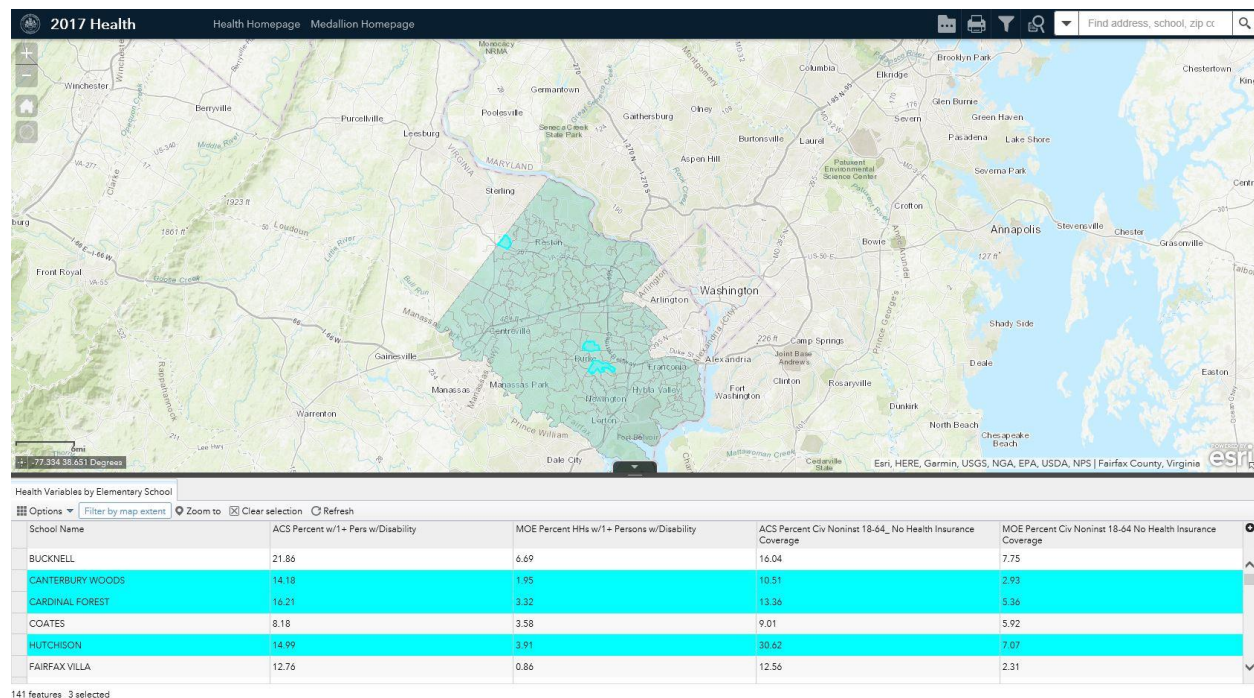


By default, the table filters to what is viewable in the map extent. If the “Filter by map extent” button is highlighted in blue, the filtering is active, as shown in the figure below. To turn that filtering off, click the “Filter by map extent” button on the table.

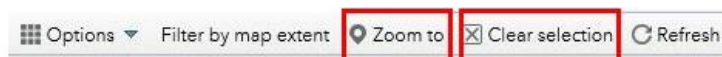




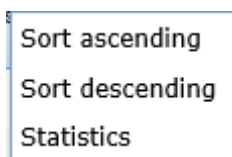
Users can also select record(s) in the table by clicking on the box in the column to the left of the record. To select multiple records, press the Shift or Ctrl key, and then click on each record. The selected records will also be highlighted on the map, as shown in the image below.



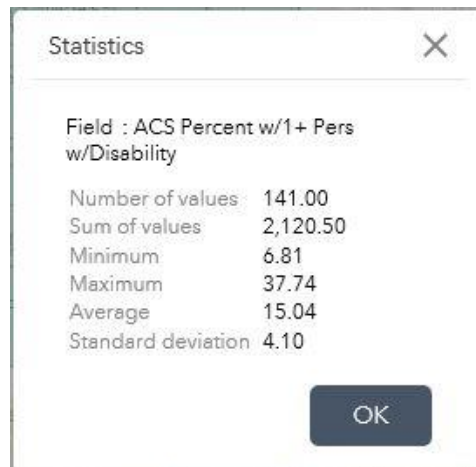
The “Zoom to” tool will zoom the map to the selected records. The “Clear Selection” button will clear all selections.



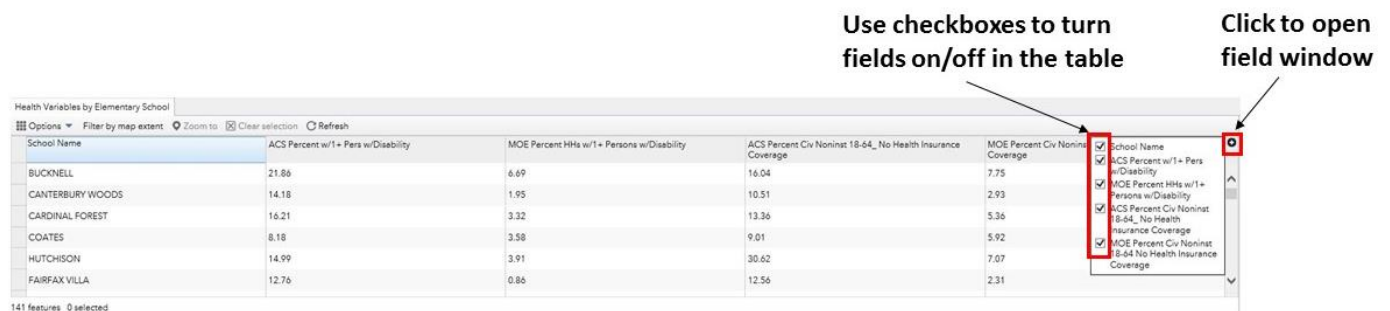
Clicking a field heading allows the records to be sorted in ascending or descending order.



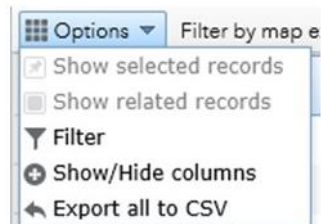
Statistics can also be calculated for each numeric field in the table. The values calculated are: Number of values, Sum of values, Minimum, Maximum, Average, and Standard deviation.



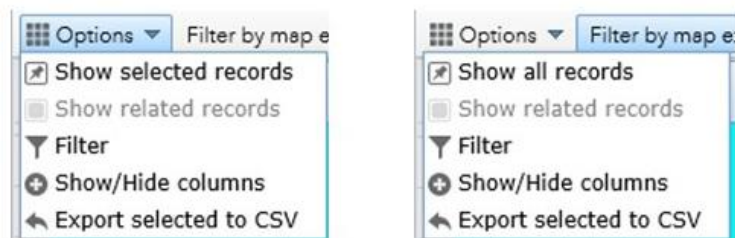
Fields can also be shown or hidden by clicking the "+" sign on the right side of the Attribute Table panel, as shown in the figure below.



Additional options are available under the Options button at the top left of the Attribute Table window. If no records are selected, the user can Filter records in the table, which also filters features on the map. The feature to show/hide columns can also be opened from the Options button. The records in the table can also be exported to a \*.csv.



If records are selected, the options that appear are slightly different. First, the user has the option of viewing only the selected records in the table by selecting “Show selected records.” To view all records again, the user can select “Show all records.” The same options of “Filter” and “Show/Hide columns” are available when records are selected. Additionally, the user has the option to export only the selected records to a \*.csv file by selecting “Export selected to CSV.”





Every application allows for the user to print a map using the print symbol above, located in the toolbar on the right side of the window. A default title is pre-populated, but the user has the ability to change the title. The user can also choose the layout size and orientation. Different formats are also available to export, including PDF, JPG, and PNG.



The image shows a 'Print' dialog box with a dark header bar containing the title 'Print' and window control icons. Below the header, there are three input fields: 'Map title:' with the text 'Fairfax County Demographics', 'Layout:' with a dropdown menu showing 'Letter ANSI A Portrait', and 'Format:' with a dropdown menu showing 'PDF'. At the bottom of the dialog, there are two buttons: 'Advanced' with a gear icon and 'Print' with a printer icon.

Additional configuration options are available through the Advanced button, as shown in the image below. The Dots Per Inch (DPI) may need to be increased in order to have a clear, readable map.



The image shows an 'Advanced' print configuration dialog box. It contains several sections: 'Map scale/extent' with radio buttons for 'map scale' (selected) and 'map extent', and a 'Force scale' field with a 'current' link; 'Layout metadata' with text input fields for 'Author:' and 'Copyright:'; 'Include legend:' with a checked checkbox; 'MAP\_ONLY size:' with input fields for 'Width (px):' (670) and 'Height (px):' (500); and 'Print quality:' with a 'DPI:' field (96).